

Notice of Allowability

Application No.

09/965,685

Examiner

Jeanne A. Di Grazio

Applicant(s)

HASEGAWA ET AL.

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2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE Request of 6/18/2004.
2. ☒ The allowed claim(s) is/are 5-10.
3. ☒ The drawings filed on 27 September 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 12 April 2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Status of Claims

Claims 5-10 are pending in the instant application.

Allowable Subject Matter

Claims 5-10 are allowed.

The following is an examiner's statement of reasons for allowance:

As to claim 5, relevant prior art of record did not disclose, alone or in combination, a method for manufacturing an electro-optical device including a flexographic process wherein at least two of: a first pitch of color filters of the same color, a second pitch of meshes (that enhance holding ability of a coating liquid) on a surface of an anilox roller, and a third pitch of meshes (that enhance holding ability of a coating liquid) formed on the surface of projections on the surface of a letterpress are substantially equal and in combination with applicant's other recited method steps.

The above method steps result in a novel method of manufacturing an electro-optical device in which halo (or moiré) which often results from flexographic printing methods is avoided because of the relationship among color filter pitch, meshes on an anilox roller, and meshes formed as projections on a letterpress.

The closest art of record, United States Patent 5,514,503 (to Evans et al.) teaches and discloses an apparatus and method for printing a color filter and concerns the precision alignment of color filters with respect to a black matrix. Evans, however, is silent with respect to any pitch of meshes being equivalent to other mesh pitches. As best understood, the meshes of claim 5 provide specific surface features on an associated roller and meshes on surfaces of projections that facilitate the application of a coating to another surface. The meshes serve to enhance a surface's ability to hold a coating prior to the transfer of the coating to another receiving surface.

Relevant art of record, United States Patent 6,213,018 B1 (to Samworth) teaches and discloses a flexographic printing plate having improved solids renditions but is silent with respect to mesh pitch.

Relevant art of record, Japanese Patent Application 03-198029 (to Toba) teaches and discloses an apparatus for producing a liquid crystal display element and discusses projecting parts on the surface of a transfer plate being at the same pitch as recessed parts of a transfer roller. However, Toba is silent with respect to meshes and in particular holding ability of the projections to transfer a coating material to another surface.

As to claims 6-8, they are dependent either directly or indirectly upon a claim (claim 5) with allowable subject matter above.

As to claim 9, relevant prior art of record did not disclose, alone or in combination, a method for manufacturing a liquid crystal device wherein at least two of: a first pitch of color filters of the same color, a second pitch of meshes (that enhance holding ability of a coating liquid) on a surface of an anilox roller, and a third pitch of meshes (that enhance holding ability

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of a coating liquid) formed on the surface of projections on the surface of a letterpress are substantially equal and in combination with applicant's other recited method steps.

The above method steps result in a novel method of manufacturing a liquid crystal device in which halo (or moiré) which often results from flexographic printing methods is avoided because of the relationship among color filter pitch, meshes on an anilox roller, and meshes formed as projections on a letterpress.

The closest art of record, United States Patent 5,514,503 (to Evans et al.) teaches and discloses an apparatus and method for printing a color filter and concerns the precision alignment of color filters with respect to a black matrix. Evans, however, is silent with respect to any pitch of meshes being equivalent to other mesh pitches. As best understood, the meshes of claim 9 provide specific surface features on an associated roller and meshes on surfaces of projections that facilitate the application of a coating to another surface. The meshes serve to enhance a surface's ability to hold a coating prior to the transfer of the coating to another receiving surface.

Relevant art of record, United States Patent 6,213,018 B1 (to Samworth) teaches and discloses a flexographic printing plate having improved solids renditions but is silent with respect to mesh pitch.

Relevant art of record, Japanese Patent Application 03-198029 (to Toba) teaches and discloses an apparatus for producing a liquid crystal display element and discusses projecting parts on the surface of a transfer plate being at the same pitch as recessed parts of a transfer roller. However, Toba is silent with respect to meshes and in particular holding ability of the projections to transfer a coating material to another surface.

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As to claim 10, it is either directly or indirectly dependent upon a claim (claim 9) with allowable subject matter above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289.


The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio
Patent Examiner
Art Unit 2871

JDG



KARIFUR R. CHOWDHURY
PRIMARY EXAMINER